

WHAT IS CLAIMED IS:

1. A system for multicast distribution of presence information to a plurality of communication devices comprising:

a plurality of communication devices, each communication device associated with a contact list that identifies at least one of the other communication devices; and

a network capable of multicast communication with the plurality of communication devices, the network being effective to provide at least one multicast address based on the contact lists of the communication devices to the plurality of communication devices and convey multicast messages identified by the at least one multicast address to the plurality of communication devices, each multicast address identifying a group of multicast devices among the plurality of communication devices, the multicast messages including presence information about the group of multicast devices,

wherein a portion of the plurality of communication devices receives the multicast messages identified by the at least one multicast address and extracts the presence information about the group of multicast devices from the multicast messages.

2. The system of claim 1, wherein the network provides a presence status to each communication device.

3. The system of claim 1, wherein each device of the group of multicast devices is configured to receive the multicast messages identified by the at least one multicast address.

4. The system of claim 1, wherein the communication devices store the contact lists and provide the contact lists to the network.

5. The system of claim 1, wherein the network stores the contact lists of the plurality of communication devices and provides the contact lists to the plurality of communication devices.

6. The system of claim 1, wherein the network generates the at least one multicast address by identifying more prominent devices of the plurality of communication devices.

7. The system of claim 1, wherein the network generates the at least one multicast address by selecting the contact lists that identify similar communication devices.

8. The system of claim 1, wherein the portion of the plurality of communication devices has contact lists corresponding to members of the group of multicast devices.

9. A method for multicast distribution of presence information to a plurality of communication devices, the method comprising the steps of:

establishing a network connection between the plurality of communication devices and a network;

accessing a contact list of each communication device by the network, each contact list being capable of identifying devices of the plurality of communication devices;

generating at least one multicast address based on the contact lists of the plurality of communication devices by the network, each multicast address identifying a group of multicast devices among the plurality of communication devices;

providing the at least one multicast address from the network to the plurality of communication devices; and

delivering multicast messages identified by the at least one multicast address to the plurality of communication devices by the network, the multicast messages including presence information about the group of multicast devices and being directed to devices that desire the presence information about the group of multicast devices.

10. The method of claim 9, further comprising the step of providing a presence status from the network to each communication device.

11. The method of claim 9, further comprising the step of configuring a portion of the plurality of communication devices to receive the multicast messages identified by the at least one multicast address.

12. The method of claim 9, further comprising the steps of:
- storing each contact list at each communication device; and
- providing the contact lists from the plurality of communication devices to the network.
13. The method of claim 9, further comprising the steps of:
- storing the contact lists of the plurality of communication devices at the network; and
- providing the contact lists from the network to the plurality of communication devices.
14. The method of claim 9, wherein the step of generating includes the steps of:
- determining a cross-correlation between entries of the contact lists;
- filtering out less prominent communication devices to create a list of possible candidates;
- determining a number of multicast addresses ("N") available for assignment;
- and
- clustering at least two communication devices remaining on the list of possible candidates to form N cluster(s) of multicast addresses.
15. The method of claim 9, wherein the step of generating including the steps of:
- selecting similar contact lists identifying similar communication devices; and
- creating the at least one multicast address based on the similar contact lists.
16. The method of claim 9, wherein the multicast messages are directed to devices that have contact lists corresponding to members of the group of multicast devices.